



Annual Report of Operations for Year 2016

**To comply with NPDES General Permit No. WAG130000 for Federal
Aquaculture Facilities and Aquaculture Facilities Located in Indian
Country within the Boundaries of the State of Washington**

NPDES # for your Facility:

WAG-13-0018

Facility & Owner Information

Facility Name:

Lummi Bay Hatchery

Operator Name (Permittee):

Lummi Indian Business Council

Address:

Physical Address:

3801 "B" Haxton Way
Bellingham, WA 98226

Lummi Indian Business Council
2665 Kwina Road
Bellingham, WA 98226

Email:

thomasmc@lummi-nsn.gov

Phone:

360-312-2289

Owner Name (if different from operator):

Email:

Phone:

Best Management Practices (BMP) Plan

Has the BMP Plan been reviewed this year? ☒ Yes ☐ No

Does the BMP Plan fulfill the requirements of the General Permit? ☒ Yes ☐ No

Summarize any changes to the BMP Plan since the last annual report. Attach additional pages if necessary.

- BMP updated to reflect increased monitoring and record keeping requirements.

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Operations and Production

Total harvestable weight produced in the past calendar year in pounds (lbs): **46,547**

Pounds of food fed to fish during the maximum month:
3,406

List the species grown or held at your facility and the annual production of each in gross harvestable weight. If fish were released rather than harvested, list the weight at time of release.

Species	Fish Produced	Receiving Water(s) to which Fish were Released	Month Released/Spawned
Chinook Salmon	5,560	Lummi Bay/Southern Geogia Strait	May
Coho Salmon	38,995	Lummi Bay/Southern Geogia Strait	April
Chum Salmon	1,992	Lummi Bay/Southern Geogia Strait	April

Fill in the table below with production numbers from the past year. List the **maximum** amount of fish on-site and the maximum amount of food fed **per month**.

Month	Total Fish (lbs)	Fish Feed (lbs)	Month	Total Fish (lbs)	Fish Feed (lbs)
January	0	0	July	0	0
February	0	0	August	0	0
March	34,799	3,406	September	0	0
April	43,444	1,721	October	0	0
May	5,560	221	November	0	0
June	0	0	December	0	0

Additional Comments:

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Solid Waste Disposal

Describe the solid waste disposed of during the calendar year (including fish mortalities).

Type of Solid Disposed	Date Disposed	Location Disposed
Juvenile Mortalities	As needed	Garbage
Adult Carcasses	As needed	Crab bait
Additional Comments:		

Fish Mortalities

Include a description and the dates of mass mortalities in the past year (more than 5% per week). Attach additional pages, if necessary. Include total mortalities from all causes.

Date	Cause of Deaths	Steps Taken to Correct Problem	Pounds of Fish
NA	NA	NA	NA
Additional Comments: No mass mortalities to report.			

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Noncompliance Summary

Include a description and the dates of noncompliance events (including spills), the reasons for the incidents, and the steps taken to correct the problems. Attach additional pages, if necessary.

No known noncompliance events to report.

Inspections & Repairs for Production & Wastewater Treatment Systems

Date Inspected	Date Repaired	Description of System Inspected and/or Repaired
NA	January	Minor repairs to cracks in raceway walls.

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Aquaculture Drugs and Chemicals

Please indicate whether you used each drug/chemical **during the past calendar year**.

Describe the use of each drug/chemical in more detail on the following pages.

Used in the past year?	Drug or Chemical
<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Azithromycin
<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Chloramine-T: <i>See additional reporting requirements on page 7</i>
<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Chlorine
<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Draxxin
<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Erythromycin - injectable
<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Erythromycin - medicated feed
<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Florfenicol (Aquaflor)
<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Formalin - 37% formaldehyde: <i>See additional reporting requirements on page 7</i>
<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Herbicide - describe:
<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Hormone - describe:
<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Hydrogen Peroxide: <i>See additional reporting requirements on page 7</i>
<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Iodine: <i>See additional reporting requirements on page 7</i>
<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Oxytetracycline
<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Potassium Permanganate: <i>See additional reporting requirements on page 7</i>
<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Romet
<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	SLICE (emamectin benzoate)
<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Sodium Chloride - salt
<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Vibrio vaccine
<input type="checkbox"/> Yes <input type="checkbox"/> No	Other:
<input type="checkbox"/> Yes <input type="checkbox"/> No	Other:

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Aquaculture Drugs and Chemicals (cont'd)

Describe all drug and/or chemical treatments that occurred during the year. Fill out the information below for each drug or chemical, plus page 7 for water-borne treatments. Attach additional pages as necessary.

Brand Name: Not a marketed product		Generic Name: Vibrio spp. Vaccine	
Reason for use: Prevention of disease caused by <i>Vibrio</i> spp.			
<input checked="" type="checkbox"/> Preventative/Prophylactic <input type="checkbox"/> As-needed	Total quantity of formulated product per treatment (specify units): 2 liters	Total quantity of formulated product used in past year (specify units): 15.14 liters	
Date(s) of treatment: 4-19-16 to 4-26-16			Total number of treatments in past year: 5
Maximum daily volume of treated water: 20-40L	Treatment concentration (specify units): 1:10 dilution	Duration and frequency of treatment(s): 15 sec. immersion, >10 times/day	
Method of application: <div> <input checked="" type="checkbox"/> Static Bath <input type="checkbox"/> Medicated Feed <input type="checkbox"/> Flow-through <input type="checkbox"/> Other (describe): </div>			
Location in facility chemical was used (check all that apply): <div> <input type="checkbox"/> Raceways <input type="checkbox"/> Ponds <input checked="" type="checkbox"/> Other (describe): <input type="checkbox"/> Incubation building <input type="checkbox"/> Off-line settling basin Stand-alone tub </div>			
Where did water treated with this chemical go? (check all that apply): <div> <input type="checkbox"/> Discharged w/o treatment <input type="checkbox"/> Septic System <input type="checkbox"/> Other (describe): <input checked="" type="checkbox"/> Settling basin <input type="checkbox"/> Publicly owned treatment works </div>			
Provide any additional information about how this chemical was used and/or special pollution prevention practices during use:			
Brand Name:		Generic Name:	
Reason for use:			
<input type="checkbox"/> Preventative/Prophylactic <input type="checkbox"/> As-needed	Total quantity of formulated product per treatment:	Total quantity of formulated product used in past year (specify units):	
Date(s) of treatment:			Total number of treatments in past year:
Maximum daily volume of treated water:	Treatment concentration (specify units):	Duration and frequency of treatment(s):	
Method of application: <div> <input type="checkbox"/> Static Bath <input type="checkbox"/> Medicated Feed <input type="checkbox"/> Flow-through <input type="checkbox"/> Other (describe): </div>			
Location in facility chemical was used (check all that apply): <div> <input type="checkbox"/> Raceways <input type="checkbox"/> Ponds <input type="checkbox"/> Other (describe): <input type="checkbox"/> Incubation building <input type="checkbox"/> Off-line settling basin </div>			
Where did water treated with this chemical go? (check all that apply): <div> <input type="checkbox"/> Discharged w/o treatment <input type="checkbox"/> Septic System <input type="checkbox"/> Other (describe): <input type="checkbox"/> Settling basin <input type="checkbox"/> Publicly owned treatment works </div>			
Provide any additional information about how this chemical was used and/or special pollution prevention practices during use:			

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Aquaculture Drugs and Chemicals (cont'd)

Additional Reporting Requirements for Water-Borne Treatments

- If a water-borne treatment was used during the calendar year, Permittees must include detailed records/calculations as an attachment to this Annual Report in order to demonstrate how the maximum effluent concentrations of solution and active ingredient were calculated for each chemical.
- EPA recognizes that water-borne treatments may vary in the volume of the vessels treated, concentration, quantity of product, etc. Permittees must provide the information listed in the following tables for a reasonable worst case (i.e., maximum effluent concentration) scenario, not for each individual treatment.
- Permittees must submit this information and calculate the maximum effluent concentration for each water-borne chemical used during the past calendar year.
- See also Appendix D for the Chemical Log Sheet.

Static Bath Treatments	
Tank Volume	Approximately 30 Liters
Desired Static Bath Treatment Concentration	100,000,000 µg/L
Volume of Product Needed	2 (+20L clean water) Liters Product
Maximum Effluent Concentration of: 1) Solution and 2) Active Ingredient	Solution: Disposed into OLSB Active Ingredient: Disposed into OLSB Specify Units
Minimum Volume of Total (treated + untreated) Water Discharged from the Facility per day	NA, Disposed into OLSB Specify Units
Maximum % of Facility Discharge Treated	NA, Disposed into OLSB % of Total Discharge

Flow-Through Treatments	
Tank Volume	Liters
Calculated Flow Rate	Liters/Minute
Duration of Treatment	Minutes
Desired Flow-Through Treatment Concentration of Product	µg/L
Amount of Product to Add Initially	Liters Product
Amount of Product to Add During Treatment	mL/Minute
Total Volume of Product Needed	Liters Product
Maximum Effluent Concentration of: 1) Solution and 2) Active Ingredient	Solution: Active Ingredient: Specify Units
Minimum Volume of Total (treated + untreated) Water Discharged from the Facility per day	Specify Units
Maximum % of Facility Discharge Treated	% of Total Discharge

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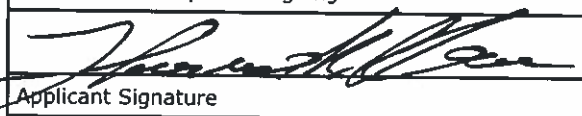
Changes to the Facility or Operations

Describe any changes to the facility or operations since the last annual report.

No changes to report.

Signature and Certification

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly evaluate and gather the information submitted. Based on my inquiry of the person or persons, who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Thomas M. Chance	Fisheries Biologist
Printed name of person signing	Title
	1/20/2017
Applicant Signature	Date Signed

Submittal Information

Send the complete, signed information, along with any attachments, to the following address:

U.S. EPA Region 10, OWW-191
Washington Hatchery Annual Report
1200 Sixth Avenue, Suite 900
Seattle, WA 98101-3140